

TIM BURRELL-SAWARD  
PORTFOLIO  
JUNE 2019





# HELLO

I'm an award winning designer with over ten years experience in the field of technologically-augmented games, products, environments and installations.

As a founding member of Sensible Object, one of the world's foremost connected play games studios, I was involved in the release of three critically-acclaimed games based on original IP. In four years the studio raised \$5m in private investment and \$1m in Kickstarter crowdfunding, shipped over 50k units globally, grew to 23 full-time employees and reached \$5m total revenue in 2019. Releases include Beasts of Balance (on shelves in Apple stores globally) and When In Rome (the world's first Alexa enabled boardgame).

As Lead Designer I ensured that the studio's creative philosophies were embodied in the games we made and the way the community perceived us. Alongside this my leadership duties included internal and external team management, individual mentoring, process development, key stakeholder liaison, hiring, KPI creation and industry outreach.

My personal skillset encompasses industrial design, prototyping (hardware, software & electronics), game design, user research, design leadership, project management (hardware and software, inc. working with Far Eastern supply chains) and mass-manufacture.

Outside of this I design and fabricate large scale interactive installations for public spaces, and have exhibited works including physical visualisations of NASA data at the Tate Britain, an award winning piece of immersive theatre at The Barbican, and a giant talking throne at Kensington Palace.

I hold a BSc in Product Design from Brighton University and also attended the Copenhagen Institute of Interaction Design (CIID).

At the heart of everything I do is a passion for making things that bring design, technology and play together in unexpected and delightful ways, and always to the highest of standards.







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# BEASTS OF BALANCE





# BEASTS OF BALANCE

Digital / Physical Connected Tabletop Game

A cross between Jenga and Pokémon, Beasts of Balance is a half-digital-half-physical tower building game. Playing either cooperatively or competitively, players take turns to build the 24 artefacts into a tower, with each piece changing the world playing out on a connected smart device.

Beasts of Balance was designed to show the possibilities that exist when digital and physical play are mixed together at their core levels. As the game progresses players instinctively switch focus between the tower and the screen, reading the digital and the physical as two halves of a whole.

Cross-generational play was at the forefront of our minds during the game's development. For kids and parents to play together (or against each other), contributing to a shared social experience. It uses its digital component carefully, being wary of the over-saturation of screen time kids can be exposed to today.

For the original release I handled all physical aspects of the game (10 retail SKUs + Kickstarter limited editions), including 3d design, interaction design, prototyping, design for manufacture, factory liaison, cost management, QA, product safety testing and global logistics.

As Product Owner for the sequel "Beasts of Balance: Battles" I oversaw hardware and software teams in the development and release of seven new physical retail SKUs and an entirely new software release (iOS & Android, inc. ARKit integration). Teams were managed using a custom Agile+Waterfall framework, enabling hardware and software disciplines with disparate pipelines to work together efficiently.

I also hold Game Designer credits for the Battles release, a role that included the development of core loops and mechanics, pacing & flow, narrative, interaction design and player retention.





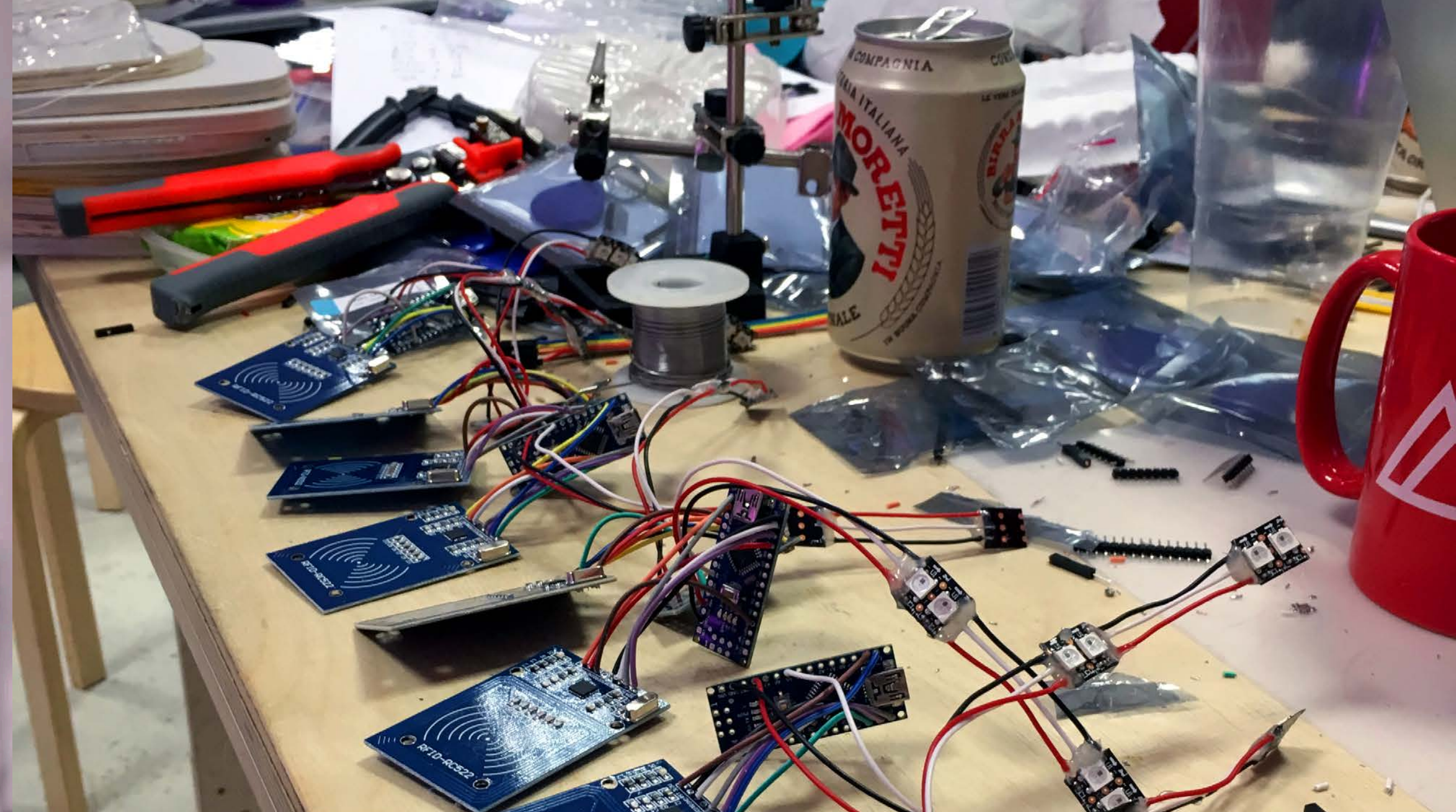


## Augmented Reality

In 2018 I lead a project to integrate Apple's ARKit into Beasts of Balance, working in partnership with Berlin-based creative tech studio NEEUU. When launched during a game, "AR Mode" causes the digital world to magically spill out into the real world, bringing the Beasts to life.

Rather than have the entire game playable through AR, which would damage the pure player-to-player connection that's so valuable in tabletop games, If players want to capture a high-tension moment they activate AR mode to record augmented footage of the play, and then simply return to normal play. Footage is then accessed post-game and can be shared on social media.

This restrained integration allowed us to work an exciting new technology into an existing game without breaking the delicate balance between digital and physical player focus.



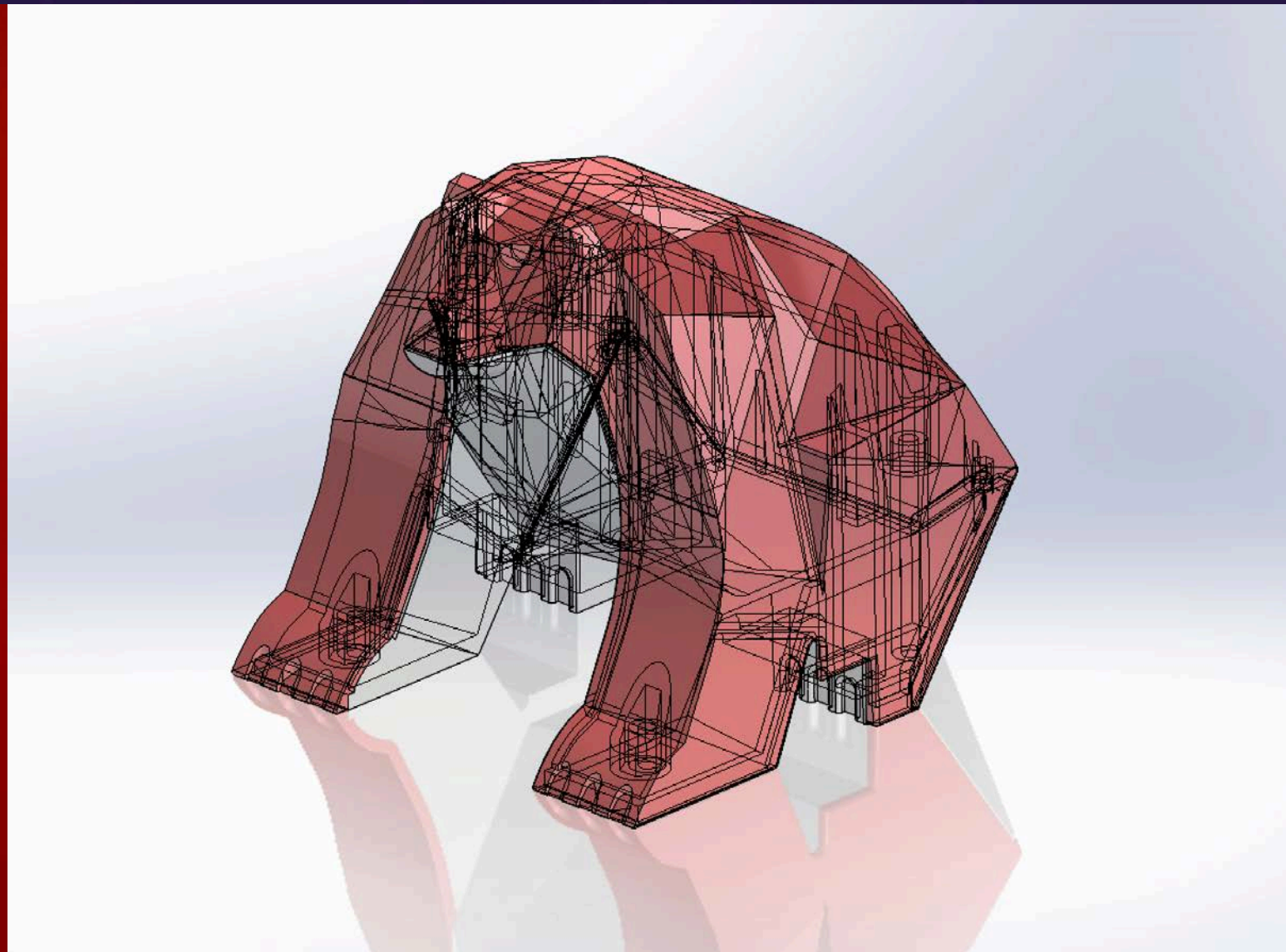
## Research & Development

I was also responsible for creating Sensible Object's R&D program, which was used to successfully deliver several viable digital/physical hardware prototypes and game concepts. Technologies included computer vision, voice technology and procedural generation.

This program used a custom version of the Design Council's Double Diamond framework, adapted to encapsulate the Agile workflow to better accommodate software development.

I firmly believe that good processes are vital in helping creative teams work together efficiently.











LONELY SPECK, COSMIC DARK





# LONELY SPECK, COSMIC DARK

## Data Visualisation

In 2015 I was invited to spend a month working from a specially built workshop inside Selfridges in London, to demonstrate the ways in which new technologies are affecting how designers and artists go about their work. Partnering with a musician, we produced an audiovisual project involving the synthesis of NASA data into audio and physical form.

The data, captured by the Voyager and Cassini probes, came in the form of short, low quality audio conversions of radio and plasma wave radiation. This was then refined into a series of ethereal, otherworldly compositions originating from sources including Jupiter, Saturn, Neptune and Uranus. We then took the same waveforms and converted them into physical form, embedding electronics inside to create a series of abstract musical devices.

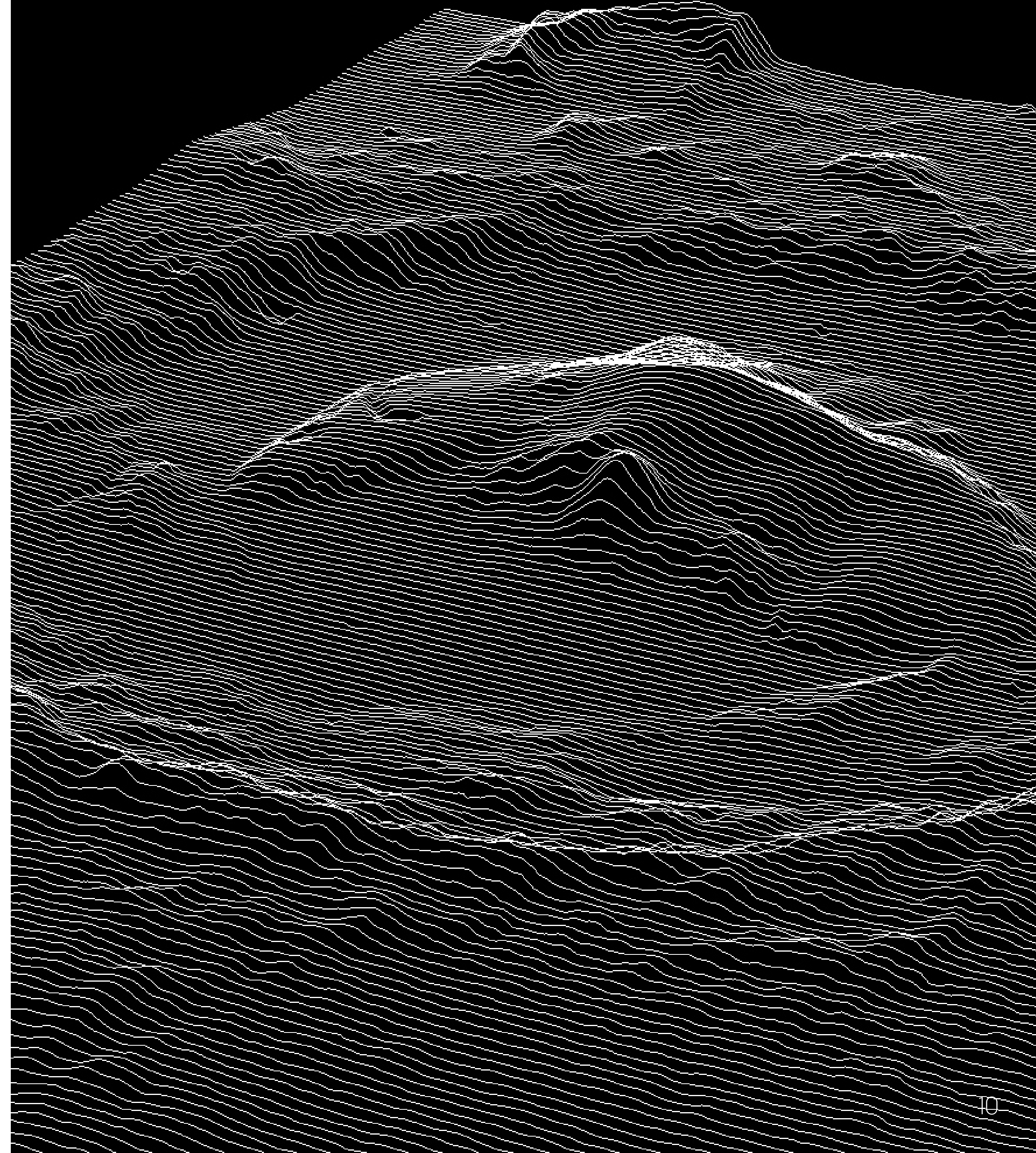
The four compositions; Enceladus, Ganymede, Jupiter and Saturn, can be heard [here](#).

Then in 2016 I was commissioned to produce a new piece in the series for display in the Tate Britain. This piece used as a base a high resolution three-dimensional scan of the Gale Crater on Mars, the landing site of the Curiosity rover in 2012. The data was firstly used to create a 6m high free standing monolith before then being digitally sliced into 200 sections to create waveforms, which were then converted into sound.

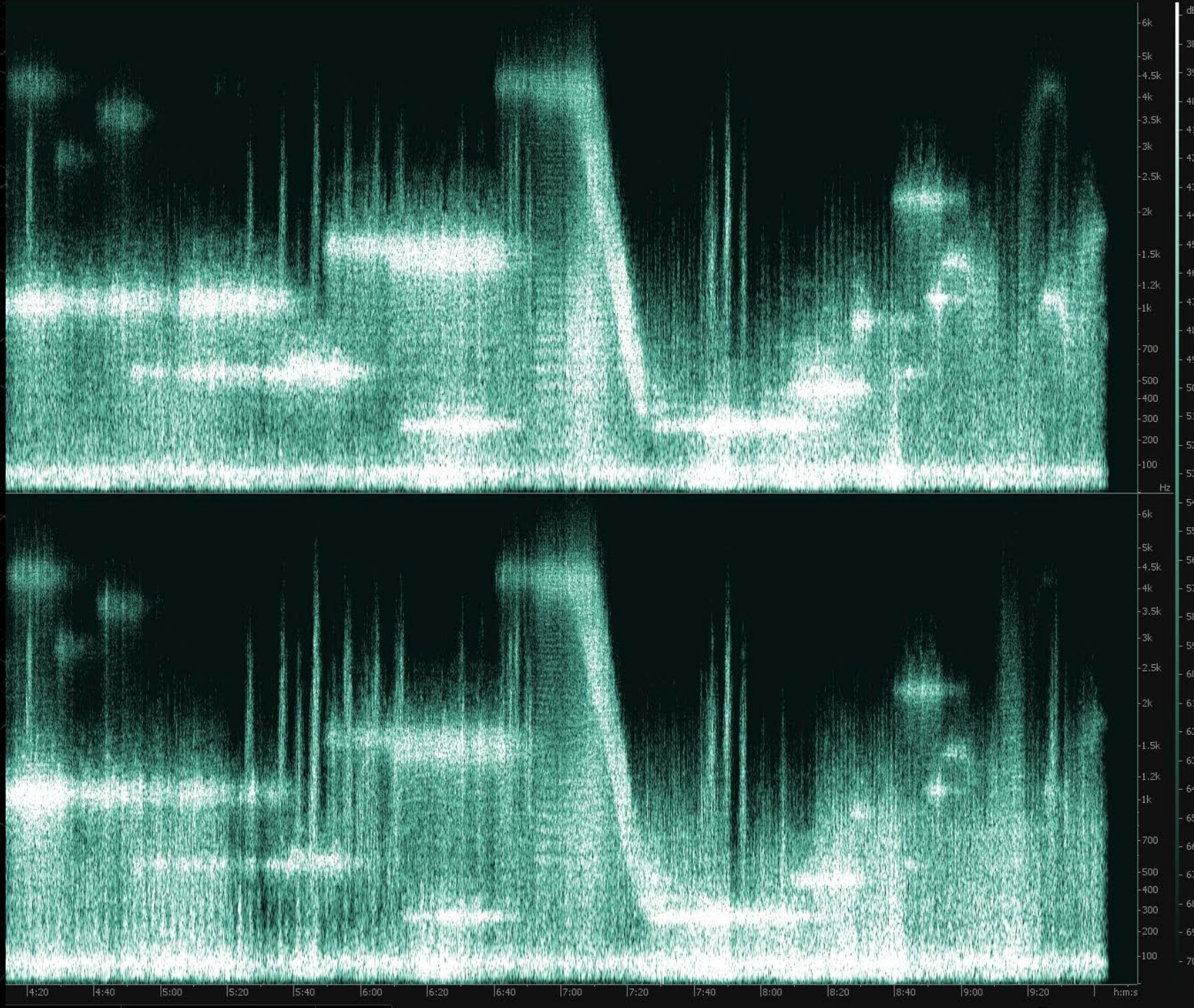
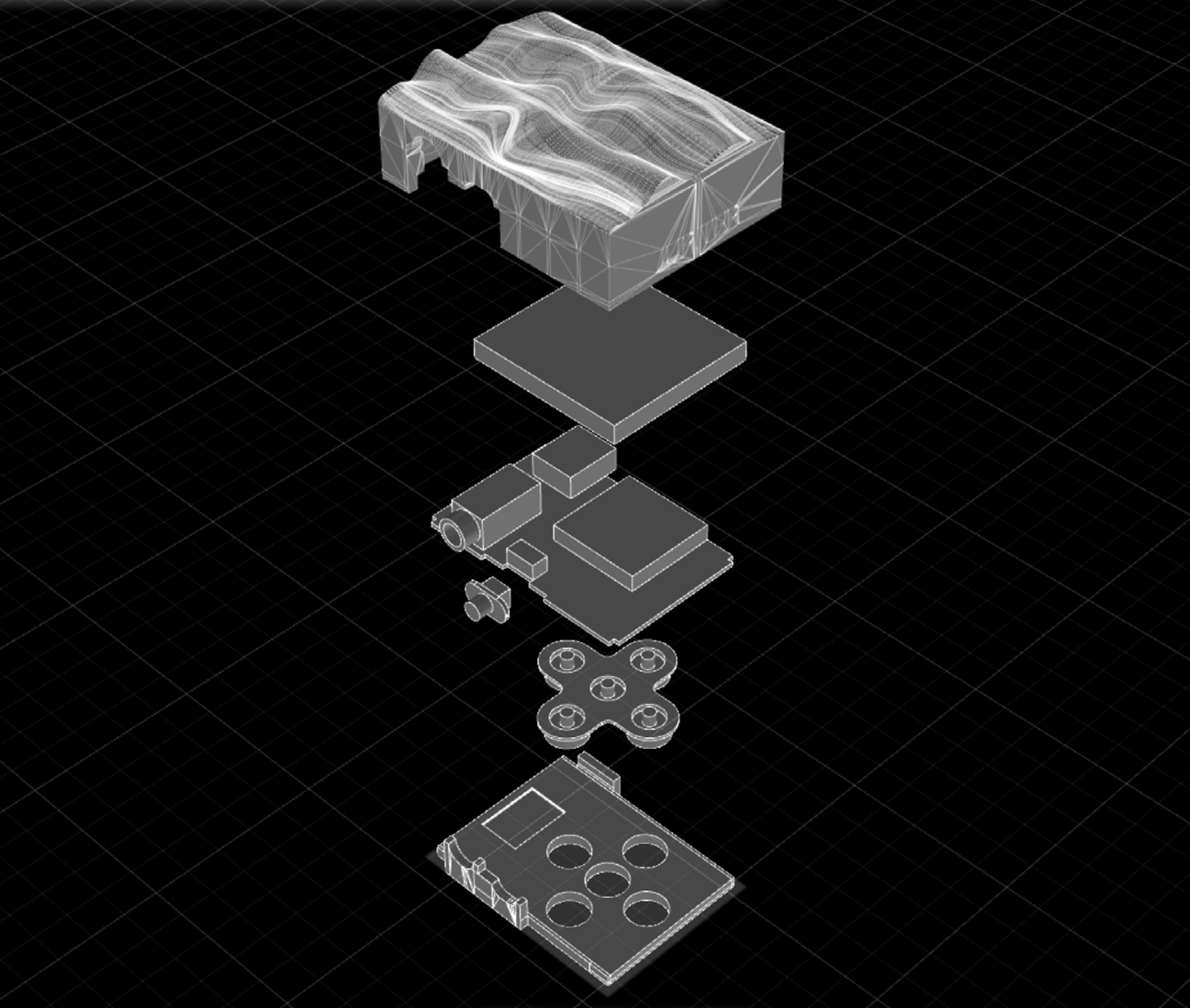
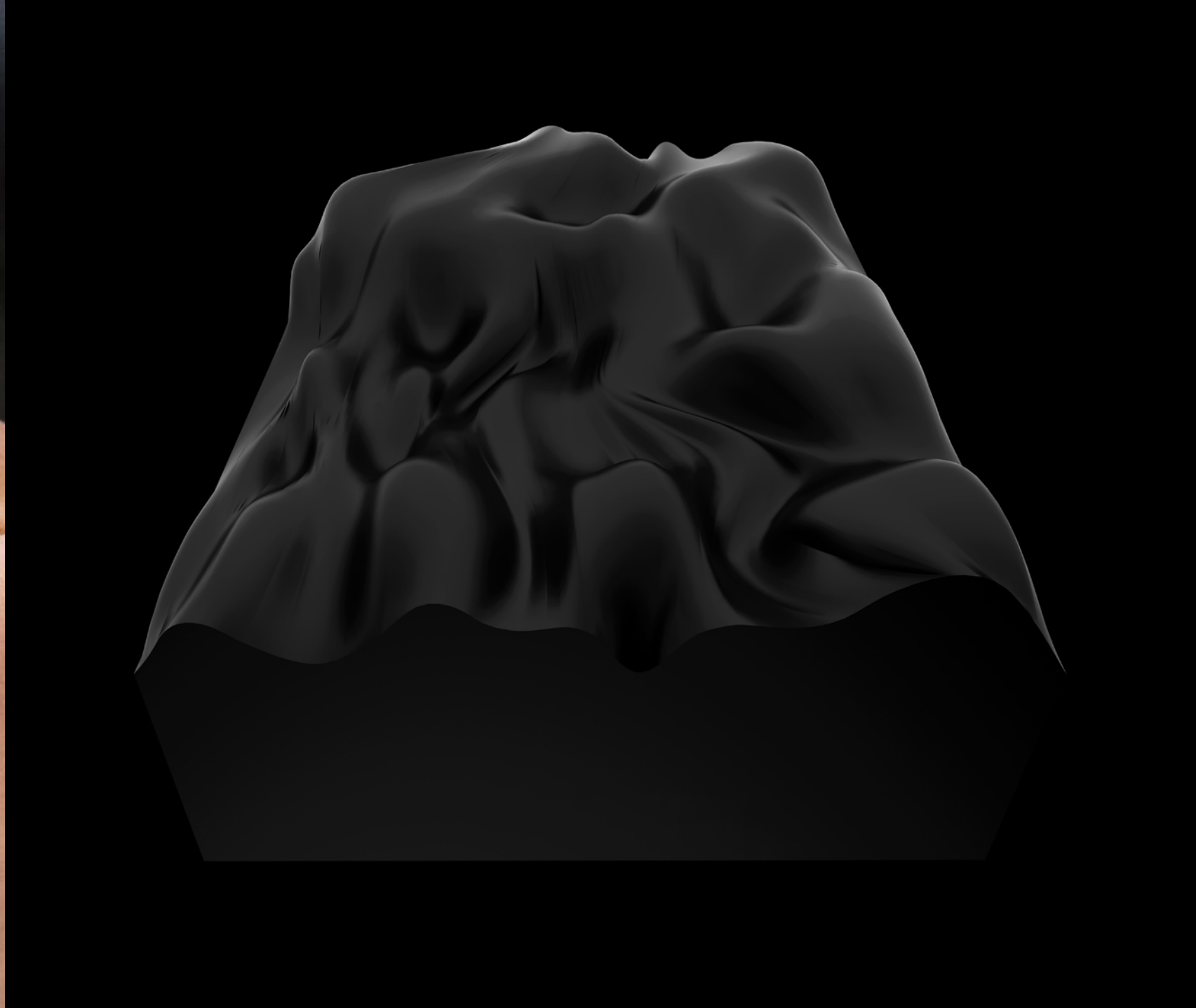
In situ at the gallery in a pitch black room, a single projected line of light slowly traced the surface of the monolith, with the resulting waveform relayed in audible form via headphones and sub-bass amps.

The Mars composition can be heard [here](#).

A talk I gave at Electromagnetic Field Festival can be found [here](#).









# THE TALKING THRONE





# THE TALKING THRONE

## Interactive Installation

Created as the focal point of a Christmas event at the royal Kensington Palace (curated by experiential game design studio Hide & Seek), the Talking Throne was designed to offer visitors a magical, fairytale experience: the opportunity to be crowned under a title of their own creation.

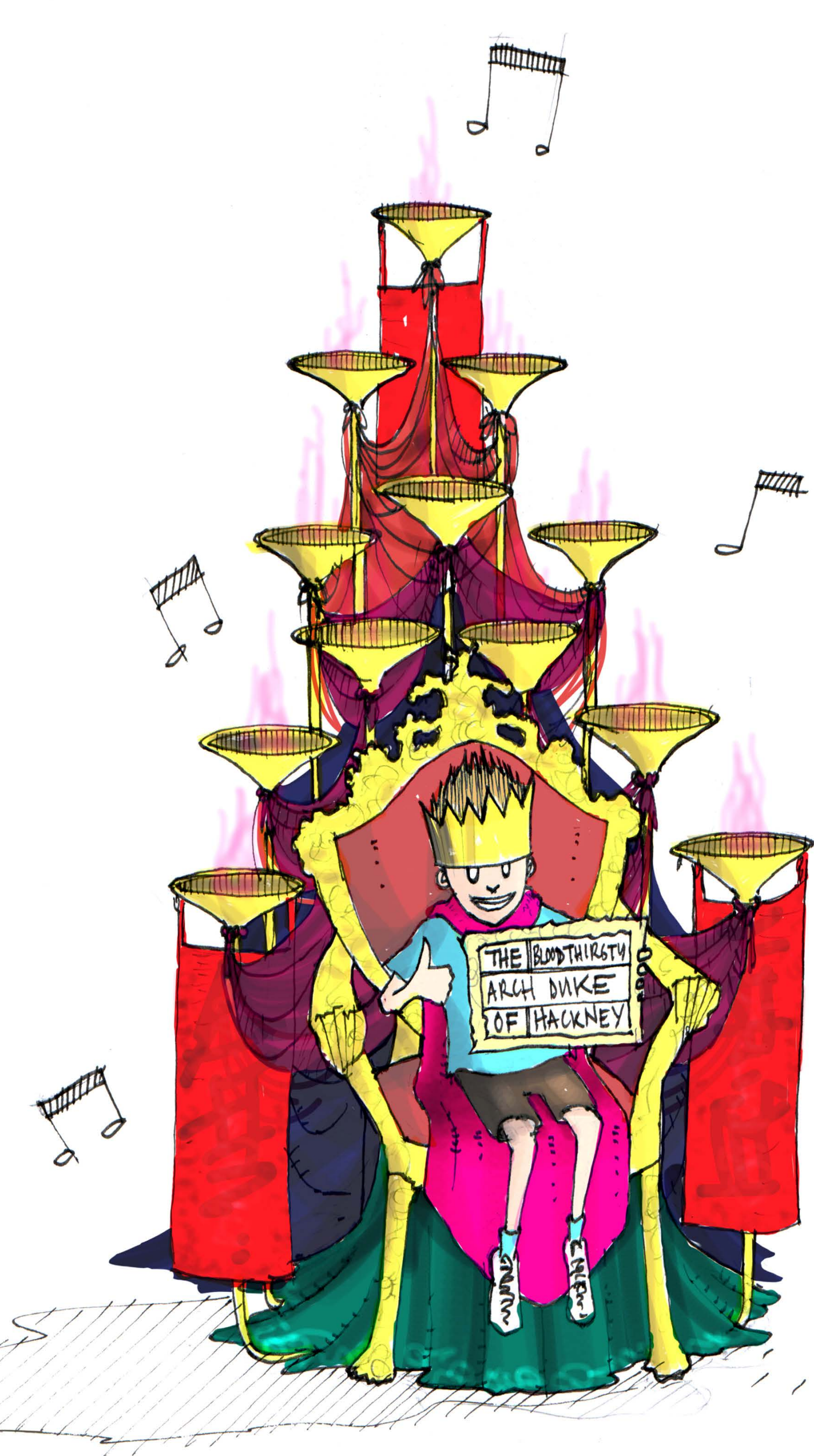
On entering the throne room each visitor was given an empty title board which they then filled with their choice from over one hundred different adjectives, titles and places (e.g. The Messy Countess of the Moon, or The Sleepy Duke of Denmark). Armed with their new title, the guest walked the red carpet and climbed the steps to take their place on the throne. Thirteen golden trumpets then erupted into a royal fanfare, with coloured streamers shooting out of each. Finally a regal voice rumbled from within the throne itself, presenting the visitor to the crowd using their chosen title. Cue applause, photos and smiles.

The throne offered pure, unadulterated escapism. To be a fairytale Prince or Princess in an actual fairytale palace. It provided a wonderful moment of levity in what, for the main part, is a rather austere environment. And because all of the technology was hidden from view, it worked entirely by magic.

The throne is now part of the permanent collection at the Oxford Story Museum, UK.









# THE OCULAR COCKTAIL CREATOR





# THE OCULAR COCKTAIL CREATOR

## Interactive Installation

Consisting of a custom built vision tracking system and screen mounted to a bespoke mechanical armature, and all built around a 1930's dentist chair, the Ocular Cocktail Creator provided a theatrical way of prescribing cocktails at events held by gin distillers Hendricks.

Based around a psychoanalytical technique developed in the 1960's called Guided Affective Imagery, participants were shown groups of carefully selected images (mountains, trees, streams, etc) with the guest unaware that each group also related to a subconscious emotional theme (aspirations, self-concept, narcissism, etc). Participants were instructed to let their eyes wander over the images, with the vision tracking system silently noting images with the longest dwell time. With each set of images relating to a particular emotional state, a "profile" would be assembled and given to the participant in the form of a tongue-in-cheek medical assessment, culminating in a personalised printed percentage breakdown of the psyche along with a prescription for a cocktail designed to redress any imbalances within the Big Five personality trait categories (extroversion, agreeableness, openness, conscientiousness and neuroticism).







#### COSMO-FREUDIAN GUIDED AFFECTIVE IMAGERY CANOE TEST



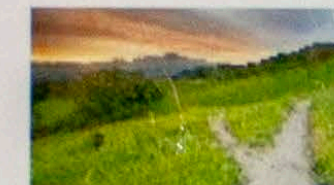
##### 1. The Meadow (Emotional State)

The lush, green meadow symbolises emotional stability. You're content with life. Some might call that boring, but you prefer 'consistent'.



##### 2. The Stream (Development Potential)

A disappearing stream indicates a longing for intellectual challenge and deep conversation. Maybe you should stop hanging out with idiots.



##### 3. The Mountain (Aspirations)

A forked path indicates that you're struggling with conflicting goals. Whatever the options, standing still will get you nowhere.



##### 4. The Tree (Self Concept)

A tree with sturdy roots indicates someone who values family and strong foundations. If the roots aren't strong, the tree won't stand.



##### 5. The Lion (Aggression)

A lion guiding his pride indicates a natural leader who doesn't need to shout. When others roar, you just wait for them to lose their voices.



##### 6. The Bloom (Narcissism)

The giant bouquet of flowers shows something of a worrying level of self-absorption. You might want to try to keep that in check...



##### 7. The Flight (Impulsivity)

The untethered balloon indicates someone whose head is firmly in the clouds. You are impulsive to a fault. Go steady, friend.

OPENNESS 34%  
CONSCIENTIOUSNESS 11%  
EXTRAVERSION 37%  
AGREEABLENESS 17%  
NEUROTICISM 0%

Date of evaluation 17/6/2015

Subject 25952877-0

Test administered at the  
Hendrick's Chambers of the Curious



On Thursday at 15:47 the user WikHead contributed to the article **Greyson Chance**.

Greyson Michael Chance (born August 16, 1997) is an American singer, songwriter and pianist whose April 2010 performance of Lady Gaga's "Paparazzi" at a sixth-grade music festival became a hit on YouTube.



WIKIPEDIA

We use Wikipedia so often that it's easy to forget how much work goes into it every day. Please show your support by donating at [en.wikipedia.org](https://en.wikipedia.org)



# WIKIPEDIA

## Data Visualisation

Commissioned for the official Wikipedia 10th Anniversary party in 2011, this temporary installation was designed to illustrate the immense traffic that the site attracts, as well as the vast amount of resources that go into its upkeep.

As you're reading this, people all over the world are contributing to the more than 5 million articles that currently exist on Wikipedia. But as with all unfathomably large numbers it's difficult to adequately convey the overwhelming scale of this data repository. However, turning numbers into physical, tangible forms can help make them much easier to digest, thus presenting a much more evocative way of looking at data.

Eighteen thermal receipt printers were suspended four meters above the heads of the party guests. Custom software fetched global page edits in real time and fed them to the printers. A brief synopsis of the edit was created, including the page name, user name of the person (or bot) who made the change, the time and the first few lines of the page body text. These receipts gently fell to the ground, building up until the floor was covered with information, creating a physical record of every change made to Wikipedia in the time the event was running.







On Thursday at 17:15 the user Dbachmann contributed to the article **Transhumance in the Alps**.

Transhumance in the Alps, or seasonal migration between valley and high pastures (German Almwirtschaft, Alpwirtschaft from the term for "seasonal mountain pasture", Alm, Alp) is a traditional practice that has shaped much of the landscape in the Alps, as without it, most areas below 2000 m would be forests.



WIKIPEDIA

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On Thursday at 15:46 an anonymous user contributed to the article **Yuan Dynasty**.

The Yuan Dynasty (Chinese: 元朝; pinyin: Yuáncháo; IPA: [ʋǎn tɕʰǎʊ]; Mongolian: Dai Ōn Ulus/ᠳᠠᠢ ᠣᠨ ᠤᠯᠤᠰ ᠶᠤᠸᠠᠨ ᠦ᠋ᠷᠦᠨ), or Great Yuan Empire (simplified Chinese: 大元帝国; traditional Chinese: 大元帝國; pinyin: Dà Yuán Dìguó) was a ruling dynasty founded by the Mongol leader Kublai Khan, who ruled most of present-day China, all of modern Mongolia and its surrounding areas, lasting officially from 1271 to 1368.



WIKIPEDIA

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On Thursday at 15:47 an anonymous user contributed to the article **Covered warrant**.

In finance a Covered warrants (sometimes called Naked warrant) is a type of warrant that has been issued without an accompanying bond or equity.



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On Thursday at 15:46 the user -5- contributed to the article **Batman in film**.

Batman was a 15-chapter serial film released in 1943 by Columbia Pictures.



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THE BODY





# THE BODY

## Immersive Theatre

In December 2014 I partnered with members of the renowned immersive theatre company Shunt to win the The Oxford Samuel Beckett Theatre Trust Award for “The Body”: an intimate and arresting technologically-augmented theatrical performance.

The piece served to examine “our relationship to the body as a visual and physical construct, but one mediated both by personal experience and external factors”. My role was to pepper the performance with discreet technologies designed to help stimulate senses and provoke responses from the unaware audience, which the cast could then call on to enhance their performances. These technologies included peripheral vision LED screens, remote-triggered sub-bass built into the theatre chairs, live heart-rate-to-sound conversion and projection mapping.

In November 2015 the concept was developed into a full performance which enjoyed a sold-out run at the Barbican in London and was described by The Guardian as “a seat-shaking, soul-searching techno-futurist experience”.









DISPLAY CABINET



Mr Cuddles is out

10°



now

16°



later

17:43

54% data used  
24h left until 01:00:00

energy: 959

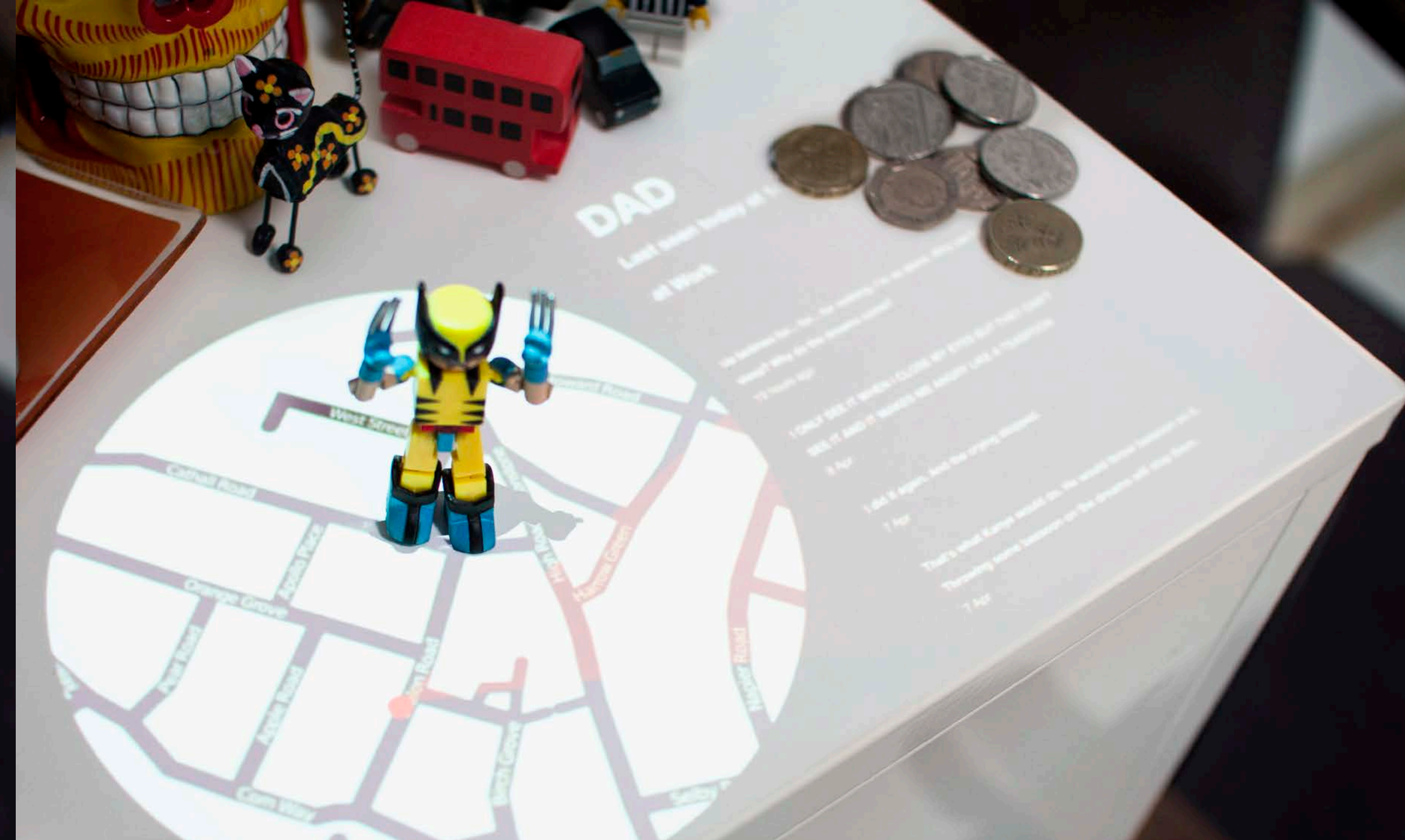
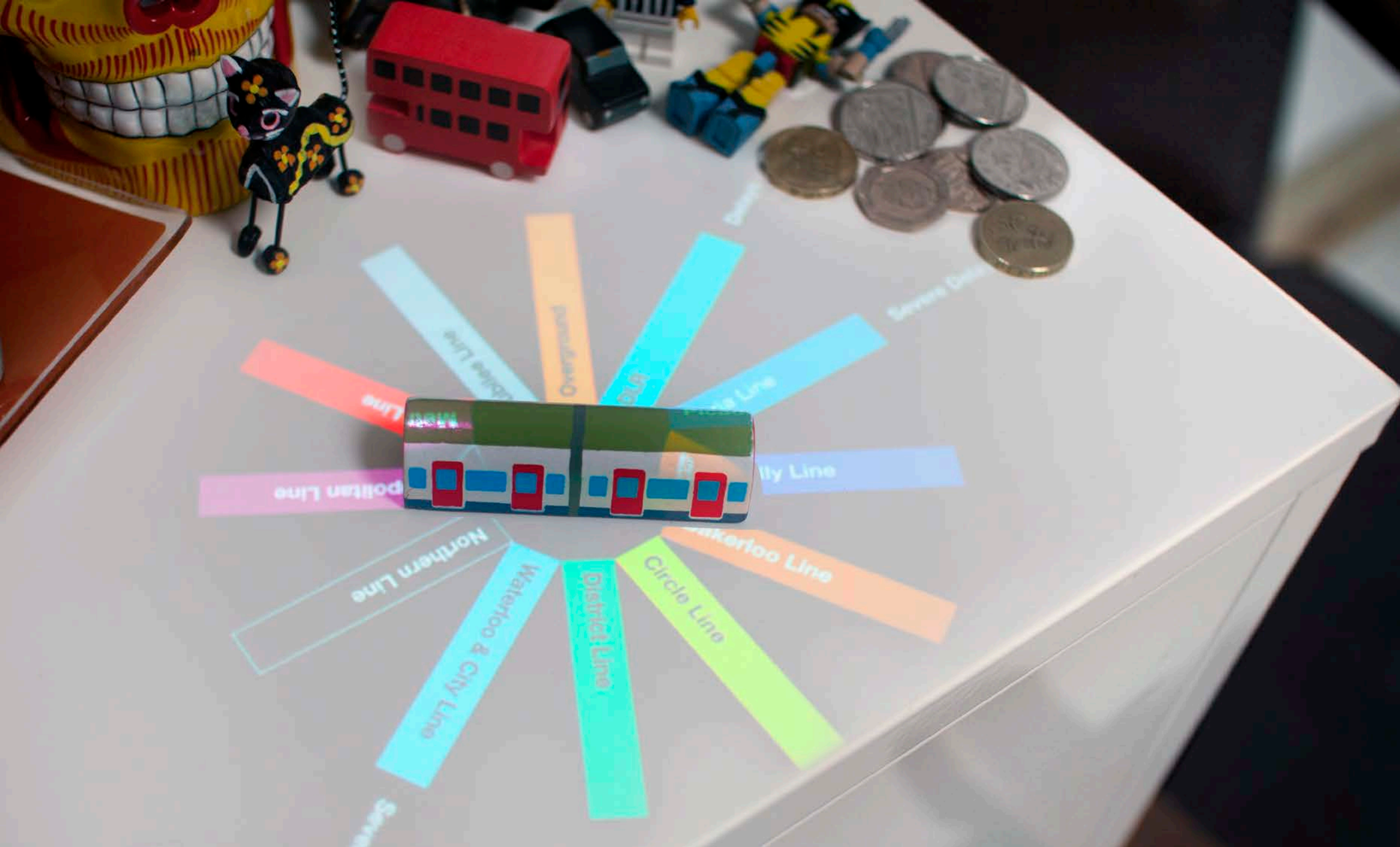
energy last seven days: 72

cost per day: £2.54











THANKS FOR YOUR INTEREST

IF YOU'D LIKE TO SEE



CLICK [\[HERE\]](#) FOR SENSIBLE OBJECT  
OR [\[HERE\]](#) FOR EVERYTHING ELSE